

Application Serial No. 09/961,297
Office Action dated January 23, 2006
Response dated April 20, 2006

REMARKS

Claims 1 through 31 have been examined. Applicants gratefully acknowledge the indication of allowable subject matter with regard to Claims 6, 7, 23, and 27. In light of the arguments below with regard to Claims 1 through 31 and new Claims 32 and 33, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims.

Regarding Section 2 of the Official Action, the Applicants again confirm that the subject matter of the instant claims and those claims of US Patent No. 6,826,200 were commonly owned at the time the inventions were made. Applicants respectfully submit that the declaration requested by the Examiner in Section 2 of the Official Action is not believed to be necessary as this information is readily substantiated by the USPTO public assignment records. Specifically, the present application is clearly owned by Nortel Networks Limited as evidenced at Reef/Frame number 012206/0207 and US Patent No. 6,826,200 is clearly owned also by Nortel Networks Limited as evidenced at Reef/Frame numbers 011330/0760 and 011636/0119. The execution dates clearly support common ownership at the time the inventions were made. Accordingly, no further declaration under the rules is believed necessary and such time and expense to obtain such declaration is wholly unnecessary.

Rejection Under 35 USC 103(a)

Claims 1-5, 8-22, 24-26, and 28-31 have been rejected on the basis of the combination of Arao (US Pat. No. 6,667,990) in view of Yamazaki et al. (US Pat. No. 6,487,686). Applicants respectfully disagree.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

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More specifically, three criteria must be considered in order for an Examiner to establish a prima facie case of obviousness: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, (2) there must be a reasonable expectation of success, and (3) the prior art references must teach or suggest all of the claim limitations. MPEP §§ 706.02(j), 2142 (8th ed.). Applicants respectfully submit that the instant rejection fails on both the first and third criteria.

For the USPTO to combine references in an obviousness analysis, the USPTO must do two things. First, the USPTO must articulate a motivation to combine the references, and second, the Patent Office must support the articulated motivation with actual evidence. In re Dembiczak, 175 F.3d 994,999 (Fed. Cir. 1999). While the range of sources for the motivation is broad, the range of available sources does not diminish the requirement for actual evidence.

The Arao patent uses an overhead byte from each OC-48 that is defined as unused. Arao defines this as the TC byte. Arao's TC byte is transmitting the B2 error count for the given OC-48. Accordingly, the Arao patent uses a different overhead byte than the present invention for passing the B2 data. Arao encodes the B2 error count (i.e., line level data) with a "representative formula" that is imprecise. Further, the Arao patent's "formula" for counting line level bit errors is to directly encode the bit error from 0-255 into the byte, and any count greater than 255 gets the number 255. In other words, Arao cannot accurately pass through bit error counts higher than 255. Moreover, the Arao patent fails to show or suggest usage of the B1 data (i.e., section level data).

In contrast to Arao, Applicants' instant invention uses the both the B1 and B2 data -- i.e., both section and line level information as error count indicators rather than just line level information as in Arao. Rather than using a defined unused byte from the overhead as does Arao, the instant invention uses overhead (i.e., an unused portion of the S1 or Z1 byte) from each of the multiplexed OC48's that is allocated for the synchronization-status information. In this way, the present invention does not run the risk of trampling on a byte that the customer equipment has already allocated for its own uses. It is well understood that SONET equipment is known for using bytes that are supposed to be undefined, thus any attempt by a transparent piece of equipment to make use of a byte that has been defined as unused in the

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SONET standard runs the risk of trampling on something that has been used by the passed through signal. The present invention uses a portion of the S1 or Z1 byte that is not otherwise allocated, though the S1 and Z1 bytes are clearly allocated for the synchronization-status information as per the SONET standard.

The addition of the Yamazaki et al. patent fails to make up for the deficiencies of the Arao patent. Specifically, the Examiner points to Yamazaki's FIG. 4 as it illustrates the structure of a typical standard SONET frame in which the bytes B1 count and B2 count are available for encoded error counts. Applicants wholeheartedly agree that the B1 and B2 count are available for encoded error counts within the SONET standard. However, nothing in the Yamazaki et al. patent nor the Arao patent show or fairly suggest using an unused portion of the transport overhead for both B1 and B2 error data in the manner as claimed in the instant application.

Applicants have amended each independent claim to clearly claim that the error count uses both the B1 and B2 count data from the SONET standard and that such error count data is placed within an unused portion of the transport overhead. This differs greatly from the Arao TC byte that may likely include data used in some manner by a SONET equipment manufacturer where such data would inevitably become corrupted by the B1 data as per Arao. Nothing in the Yamazaki et al. patent would change this.

Accordingly, it is respectfully submitted that the rejection fails to establish a prima facie case of obviousness by failing to provide and support an adequate motivation to combine the cited references to support the rejection.

New Claims

Applicants have added new Claims 32 and 33. Claim 32 parallels the subject matter of Claim 18 and both Claims 32 and 33 have clear support at page 19, lines 13 through 18 in the Specification as-filed. As Claims 32 and 33 depend from Claim 1 and Claim 1 is believed allowable, so too are Claims 32 and 33.

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CONCLUSION

Applicants respectfully submit that the pending claims as now amended are not shown or fairly suggested by the cited references taken alone or in any combination. Accordingly, the outstanding rejections should be withdrawn.

No additional fee is believed due for this submission. However, Applicant authorizes the Commissioner to debit any required fee from Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP. The Commissioner is further authorized to debit any additional amount required, and to credit any overpayment to the above-noted deposit account.

It is submitted that this application is now in condition for allowance, and action to that end is respectfully requested.

Respectfully submitted,

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